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ABSTRACT

Followup was conducted on 39 students identified as at risk for perceptual disorders based on diagnosis in grade 1 and on 79 children in a control group. Procedures included comparisons between risk group and reference group on test results from grades 1-9, analysis of interviews and observations of the risk Ss, and case studies of risk Ss. Results revealed that early perceptual disabilities need not be permanent or conducive to learning difficulties; that early supportive measures of a preventive nature can be effective; and that environmental factors are influential in the functioning and developmental opportunities of perceptually disabled pupils. Practical considerations in improving the school situation for pupils with perceptual disabilities are noted, including refined diagnostic instruments, improved personnel training, and greater stress on the value of prevention. (CL)

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SCHOOL RESEARCH
Newsletter

January 1984 Concluded project 1984:1

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Title of project: Children with early perceptual functional disturbances. A follow-up during school years.

Project No.: 2129

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1. BACKGROUND

Schools today have great difficulty in providing perceptually handicapped pupils with instruction which is adequate both cognitively and in terms of personal development.

Previous research, which has been greatly dominated by the medical aspect, has employed an unduly narrow approach and has described difficulties in terms of defects on the part of the individual. Accordingly, little interest has been taken in other possible explanations. But definitions failing to describe the difficulties in their context are unsatisfactory. Nor have the consequences or causes of perceptual disabilities been elucidated from an instructional and remedial viewpoint.

The aim of the project Children with perceptual functional disabilities has been to place perceptual disabilities in a broader context and instead of concentrating exclusively on the difficulties of the individual pupil to consider the significance of environment as well. The phrase "special needs" denotes, not a characteristic of the pupil, but the interaction between individual, environment and society.

2. STRUCTURE AND CONDUCT OF THE INVESTIGATION

The project Children with perceptual disabilities began in Eskilstuna in 1970 at the initiative of Hospital Consultant Birger Wictorin and school psychologist Gunnar Korsfeldt. The aim of the project was to diagnose children with perceptual difficulties in an expanded four-year check and, in pre-school follow-up activities from age 4, to give these children more opportunity of stimulus in order to avert learning difficulties.

2.1 Diagnosis

Early diagnosis is based on a model of communications theory showing perception to be founded on two types of data, viz information received through the sensory organs and recollections of previous experience. The information collected and interpreted is stored in the memory bank. With the aid of information stored previously, it can also be emitted in the form of speech and manipulation. It was assumed that disturbances in one or more of the five channel functions visual and auditive perception, stereognosis, speech and manipulation (as well as intersensory difficulties) could lead to learning difficulties. The diagnosis included a health

check for four-year-olds as recommended by the National Board of Health and Welfare and a supplementary section referring to perceptual disabilities. (Axner & Nilsson 1974, p. 41)

A risk assessment was based on notable conditions regarding

I Heredity (hereditary diseases, specific reading disabilities, retarded speech development, ambilaterality etc. among the child's next of kin and relatives)

II Perinatal data (data from the period immediately preceding, during and immediately after birth)

III Other anamnesis (the child's development and early illnesses)

IV A clinical and psychological examination of motor-perceptual functions. These tests are divided into the following two groups:

(a) Perceptual tests (visual and auditive canal function, stereognosis and data bank)

(b) Motor tests (manipulation and speech status)

Children whose performance in the expanded four-year control came below a standard deviation of -1 and who were classified as "children at risk" (N = 39) were selected by means of statistical calculations. The other children (N = 79) formed a reference group.

2.2 Follow-up

The purposes of the inquiry were as follows:

1. To examine the predictive value of the expanded four-year check with regard to future perception and other functions.
2. To describe children with early perceptual disabilities and to analyse their development and school situation.
3. To analyse impediments and propose practical measures for children with perceptual disabilities.

The follow-up involved 98 pupils, 39 of whom constituted the risk group while the remainder constituted the reference group. The pupils came from about 42 classes in Eskilstuna municipal schools.

Phase I took place when the pupils were in grade 1 (Axner & Nilsson 1974).
Phase II took place in grade 2 (Axner 1976).
Phase III took place in grades 6 and 7. Supplementary data were collected up to and including grade 9. During Phase III the project was attached to the Department of Educational Methods in the University of Göteborg, with Ulla Axner as project leader and Professor K-G Stukát as scientific leader. The project was concluded in 1983 (Axner 1983).

2.3 Data processing

In keeping with the aims of the project, the material has been processed by the following means:

1. Comparisons between risk group and reference group on the basis of test results from grades 1 to 9, the aim being to investigate the predictive value of the four-year check with regard to future perception and other functions.
2. A closer analysis of the risk group on the basis of test results, observations, interviews and projective tests, the aim being to acquire more balanced information concerning the way in which the risk children function in class, their relations with fellow-pupils and school staff, teachers' and parents' opinions of the risk children, and the pupils' own experience of their situation.
3. Case studies of some risk children, describing development from the grade four check up to and including grade 9 in relation to the supportive measures taken.
4. Comparisons of supportive measures taken in the risk group and reference group, together with a closer analysis of supportive measures taken on behalf of the risk group.

3. RESULTS

The main results of the study can be summarised as follows:

1. Early perceptual disabilities can do a great deal to influence the way in which the child functions later in life, but these disabilities need not always be permanent or conducive to learning difficulties.
2. It seems possible to distinguish at an early stage a small group in which there is a serious risk of individual children encountering difficulties in school.
3. Early supportive measures of a preventive nature mean a great deal for the development of the perceptually disabled child.
4. Schools have great difficulty in providing adequate instruction for pupils with perceptual disabilities. School staff declare their willingness to support pupils with these difficulties and they have certain resources at their disposal, but they find it very difficult to organise concrete measures.
5. Lack of self-confidence is one of the main problems in the school situation of pupils with perceptual disabilities, and schools must give them a greater opportunity of strengthening their self-confidence and their identity.
6. Environmental factors have a very important bearing on the functioning and developmental opportunities of perceptually disabled pupils, irrespective of whether or not their disabilities are neurologically related.

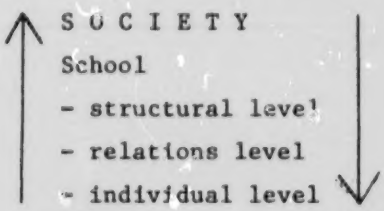
Obstacles indicated by the investigation included the following:

- Restricted frames governing teaching.
- A feeling on the part of school staff that they are insufficiently trained for this work.
- Under utilisation of resources.

- Excessively short-term remedial planning.
- Lack of a common conceptual apparatus.
- The great resistance of schools to change.
- Communications difficulties in schools.
- Poor utilisation by schools of the resource constituted by parents.
- The vague professional role of remedial teachers.
- Lack of suitable diagnostic instruments.
- A pupil-centred approach.
- Individualisation difficulties.

4. DISCUSSION OF PRACTICAL MEASURES

In remedial pedagogics, problems are usually analysed at individual level. Important as they are, measures at this level are not sufficient. In diagnosis and in the discussion of practical measures, therefore, just as in research and data interpretation, a broader perspective is needed and instead of looking to the individual for the cause of difficulties one must also take the environment into account. In this way the discussion of practical measures will relate to various levels, viz structural level, relations level and individual level.



At structural level we are concerned with teacher education, remedial teacher training, INSET and the resource allocation system.

At relations level problems are identified through an analysis based on marking theory and the implications for remedial instruction. A theoretical aspect of practical work is then presented, together with examples of concrete measures.

At individual level one starts by considering various theoretical approaches and their implications for practical work. Diagnosis is dealt with first on a basis of the investigation findings, followed by some examples of practical work and suggestions for further reading.

4.1 Summary: practical considerations and opportunities of development

This investigation has shown that in order to improve the school situation for pupils with perceptual disabilities. thoroughgoing changes will have to be made at all levels, e.g.

- Refined diagnostic instruments, developed on a basis of co-operation between different disciplines (medicine, psychology, pedagogics, sociology, linguistics, speech pathology etc.) for the early identification of perceptual disabilities.

- Greater possibilities of early preventive action.

- Thoroughgoing personnel-training and subsequent-training reforms for all child health care, child care and school personnel.

- Improved knowledge on the part of personnel can lead to a better utilisation of resources and more long-range remedial planning.

- The individually centred approach must be abandoned and efforts made instead to achieve a relations-oriented approach whereby the environment and we ourselves form part of the pupil's difficulties.

- The relations level is the point of departure for work at individual level, with collaboration between homes and schools.

- Work at individual level must be characterised by individualisation and all round stimulus, the various senses must be meaningfully utilised for the development of various functions and the aim of teaching must be to enable pupils with perceptual disabilities to strengthen their ego and their identity.

The results show that children with early perceptual disabilities according to several of the four-year check criteria are very liable to get into a "vicious circle", with difficulties being superimposed upon one another with the passing of time. At the same time this inquiry has shown that early perceptual disabilities are not always permanent or conducive to difficulties. In the discussion of practical measures, emphasis is placed on the importance of all-round stimulus and creative working methods which can give the pupil an opportunity of entering "the right track" and in this way strengthening his self-reliance and identity.

4.2 Development and continuing research

Existing knowledge should be co-ordinated, documented and constructively utilised for the benefit of practical work in schools. Responsibility for this development must be assumed on a basis of deliberate and consistent co-ordination between research, development and basic/subsequent training. One of the essential tasks here is to identify theoretical premisses and conceptual definitions. The effect of overriding structures on perception must also be viewed at individual level, with regard to ego and identity. The connection between identity and the pupil's role must be discussed in relation to remedial teaching and the structure of present-day school objectives. The school environment should be brought into focus as part of the problem complex, partly in terms of expectations, communications and perception in teaching, and similarly, different family patterns, including such elements as identity disturbances, emotional inhibition and acquired low achievement, should also be studied. One essential task here is that of conditioning the attitudes of other people towards pupils with difficulties.

The inquiry has been concerned with the relationship between early motor-perceptual disabilities, subsequent functioning in school and the importance of the environment in this context. In keeping with the tenor of the report, our continuing work should be concerned not only with pupils' perceptual disabilities but also with our own perceptual difficulties in apprehending their true needs.

The investigation is described in the report:

CHILDREN WITH EARLY PERCEPTUAL DISABILITIES
A follow-up during school years. (Axner 1983)
Report No. 130
September 1983
411 pp. + appendices
(In Swedish)

The report is arranged as follows.
Chapter 1 describes the teaching of pupils with perceptual disabilities and learning difficulties, on the basis of the author's own experience. A theoretical section on perception and perceptual disabilities is followed by a short summary of previous research in this field, in which perceptual disabilities are viewed in relation to ability, knowledge and ego identity and social ability.

Chapter 2 contains a concise description of the background and aims of the Eskilstuna project, the expanded four-year check, early pre-school activities and the follow-up of the project.

Chapter 3 contains a quantitative analysis in which the risk group and reference group are compared with respect to test results from grade 1 to grade 9 inclusive.

Chapter 4 contains an analysis of the risk group.

Chapter 5 contains a number of case studies which provide a more articulate description of the school situation of children at risk. On the basis of the four-year check, developments during the school years are described with reference to each case, in relation to the supportive measures taken.

Chapter 6 describes the supportive measures taken during the pre-school and school years, together with the attitudes of various groups towards supportive measures and remedial instruction.

The discussion of practical measures opens in Chapter 7, which deals with results and experience from the inquiry which are of essential importance when discussing practical measures. The main findings are summarised and discussed in a broader context, with reference to three levels: structural level, relations level and individual level.

Chapters 8, 9 and 10 deal with these three levels in terms of practical measures. At each level, examples of concrete measures are given with reference to the investigation findings and "obstacles".

Chapter 11 is entitled "Summary of viewpoints concerning practical measures and development opportunities".

Chapter 12 is a summary of the report "Children with early perceptual disabilities. A follow-up during school years."

The report can be ordered from:

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